

CLAIMS: I claim:

1 1. A wheelchair suspension comprising:  
2 a frame member;  
3 a pivoting assembly having:  
4 a pivot arm pivotally coupled to the frame and  
5 having a first engagement surface;  
6 a drive assembly pivotally coupled to the frame  
7 and having a second engagement surface configured to engage  
8 the first engagement surface; and  
9 wherein the second engagement surface is  
10 configured to disengage from the first engagement surface  
11 upon pivotal movement of the drive assembly in a first  
12 direction.

1 2. The suspension of claim 1 wherein the first engagement  
2 surface comprises a shoulder.

1 3. The suspension of claim 1 wherein the second  
2 engagement surface comprises a cylindrical shape.

1 4. The suspension of claim 1 wherein the first engagement  
2 surface comprises an undulating surface.

1 5. The suspension of claim 3 wherein the cylindrical  
2 shape is received by the undulating surface.

1 6. The suspension of claim 1 wherein the pivot arm and  
2 the drive assembly are pivotally coupled to the frame at a  
3 common location on the frame.

1 7. The suspension of claim 1 further comprising a  
2 resilient member for regulating the second engagement  
3 surface disengage from the first engagement.

1 8. The suspension of claim 1 wherein the pivot arm  
2 further comprises a first and second ends and wherein the  
3 first end has a castor assembly coupled thereto and wherein  
4 the second end comprises the first engagement surface.

1 9. The suspension of claim 6 wherein the pivot arm  
2 further comprises a first and second ends and wherein the  
3 first end has a castor assembly coupled thereto and wherein  
4 the second end comprises the first engagement surface, and  
5 wherein the common pivot location is between the first and  
6 second ends.

1 10. A wheelchair suspension comprising:  
2 a frame;  
3 at least one pivot arm pivotally coupled to the frame  
4 and having a first engagement surface;  
5 at least one drive assembly pivotally coupled to the  
6 frame and having a second engagement surface;  
7 wherein the pivot arm and drive assembly are pivotally  
8 coupled to the frame at a common location on the frame; and  
9 wherein the first and second engagement surfaces are  
10 configured to engage each other upon pivotal motion of the  
11 drive assembly in a first direction and to disengage from  
12 each other upon pivotal motion of the drive assembly in a  
13 second direction.

1 11. The suspension of claim 10 wherein the first  
2 engagement surface comprises a shoulder.

1 12. The suspension of claim 10 wherein the second  
2 engagement surface comprises a cylindrical shape.

1 13. The suspension of claim 10 wherein the first  
2 engagement surface comprises an undulating surface.

1 14. The suspension of claim 10 further comprising a  
2 resilient member disposed between the pivot arm and the  
3 drive assembly to limit the relative pivotal movement  
4 therebetween.

1 15. The suspension of claim 10 wherein the pivot arm  
2 comprises a front portion having a at least one caster  
3 coupled thereto and a rear portion having the first  
4 engagement surface.

1 16. The suspension of claim 15 wherein the pivotal  
2 coupling of the pivot arm is between the front and rear  
3 portions of the pivot arm.

1 17. The suspension of claim 10 wherein pivotal motion of  
2 the drive assembly in a first direction causes pivotal  
3 motion of the pivot arm and pivotal motion of the drive  
4 assembly in a second direction does not cause pivotal  
5 motion of the pivot arm.

1 18. A wheelchair suspension comprising:  
2 a frame having first and second sides;

3 first and second pivoting assemblies coupled to the  
4 first and second sides of the frame, each pivoting assembly  
5 comprising:

6 a pivot arm pivotally coupled to the frame and  
7 having a first engagement surface;

8 a drive assembly pivotally coupled to the frame  
9 and having a second engagement surface configured to engage  
10 the first engagement surface; and

11 wherein the second engagement surface is  
12 configured to disengage from the first engagement surface  
13 upon pivotal movement of the drive assembly in a first  
14 direction.

1 19. The suspension of claim 18 wherein the first  
2 engagement surface comprises at least a partially  
3 undulating surface.

1 20. The suspension of claim 19 wherein the second  
2 engagement surface comprises a shape configured to be at  
3 least partially seated within the at least partially  
4 undulating surface.